WHAT IS CLAIMED IS:

1. A stent and balloon catheter in combination comprising:

a balloon catheter with a first and a second balloon, the second balloon overlaying the first balloon; and

an expandable stent mounted over the first and second catheter balloons,

wherein a burst pressure of the first balloon is less than a burst pressure of the second balloon a length of the second balloon is greater than a length of the stent and a length of the first balloon is less than the length of the stent.

2. A balloon catheter according to claim 1 wherein the burst pressure of the inner balloon is less than 10 atmospheres.

3. A balloon catheter according to claim 2 wherein the burst pressure of the inner balloon is approximately 5 atmospheres.

4. A balloon catheter according to claim 3 wherein the burst pressure of the outer balloon is greater than 10 atmospheres.

5. A balloon catheter according to claim 1 wherein the burst pressure of the inner balloon is approximately 5 atmospheres.

6. A balloon catheter according to claim 1 wherein the burst pressure of the outer balloon is greater than 10 atmospheres.

7. A balloon catheter according to claim 3 wherein the outer balloon is formed of a non-compliant material.

8. A balloon catheter according to claim 7 wherein the inner balloon is formed of a non-compliant material.

9. A balloon catheter according to claim 1 wherein the outer balloon is formed of a non-compliant material.

10. A balloon catheter according to claim 1 wherein the inner balloon is formed of a non-compliant material.

11. A balloon catheter according to claim 1 wherein the catheter shaft has a guidewire port located adjacent the balloons.

12. The combination according to claim 1 wherein the burst pressure of the first balloon is at least 5 atmospheres less than the burst pressure of the second balloon.

13. A method of implanting a stent comprising:

providing a balloon catheter with an outer balloon and an inner balloon, the outer balloon overlaying the inner balloon a burst pressure of the inner balloon being substantially less than a burst pressure of the outer balloon, ;

mounting a stent on the balloon catheter;

delivering the balloon catheter and stent to a desired location in a vessel in a body;

inflating the inner balloon to a pressure sufficient to expand a central portion of the stent;

continuing inflating the inner balloon to a pressure sufficient to burst the inner balloon

inflating the outer balloon to a pressure sufficient to implant the stent; and

deflating and removing the balloon catheter.

14. The method according to claim 13, wherein the step of inflating the inner balloon to a pressure sufficient to expand a central portion of the stent implants the central portion of the stent and said step of inflating the outer balloon to a pressure sufficient to implant the stent implants the ends of the stent.

15. The method according to claim 13, wherein the outer balloon has a length longer than the stent and the inner balloon(6) has a length shorter than the stent.

16. The method according to claim 14, wherein a burst pressure of the outer balloon is over approximately 10 atmospheres and a burst pressure of the inner balloon is less than approximately 5 atmospheres.

17. A method of implanting a stent, comprising:

mounting a stent on a balloon catheter with an outer balloon with a length longer than the stent and an inner balloon with a length shorter than the stent, the outer balloon overlaying the inner balloon, a burst pressure of the inner balloon being substantially less than a burst pressure of the outer balloon;

delivering the balloon catheter and stent to a desired location in a vessel in a body;

inflating the inner balloon to a pressure sufficient to expand the stent;

continuing inflating the inner balloon to a pressure sufficient to burst the inner balloon;

inflating the outer balloon to a pressure sufficient to implant the stent; and

deflating and removing the balloon catheter.

18. The method according to claim 17, wherein the step of inflating the inner balloon to a pressure sufficient to expand the stent expands and implants the central portion of the stent and said step of inflating the outer balloon to a pressure sufficient to implant the stent implants the ends of the stent.

19. The method according to claim 17, wherein a burst pressure of the outer balloon is over approximately 10 atmospheres and a burst pressure of the inner balloon is less than approximately 5 atmospheres.

20. A method of implanting a stent, comprising:

expanding the central area of the stent with a first balloon;

bursting the first balloon; and

then expanding the ends of the stent with a second balloon.

21. The method of claim 20 wherein said first balloon comprises an inner balloon disposed inside said second balloon comprising an outer balloon.